



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,977	08/04/2003	Yoshiki Kuhara	12852-019001	5634

26211 7590 09/20/2005

FISH & RICHARDSON P.C.  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER
----------

DUPUIS, DEREK L

ART UNIT	PAPER NUMBER
----------	--------------

2883

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/633,977	KUHARA, YOSHIKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Derek L. Dupuis	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see page 2, in combination with the change to the title filed 7/11/2005, with respect to the objection to the specification have been fully considered and are persuasive. The objection to the specification has been withdrawn.
2. In page 3 of applicant's remarks, applicant states that claims 1-3, 6-7, and 12-14 are pending in the case and that claims 4, 5, and 8-11 were withdrawn. The examiner believes that this statement may have been an inadvertent error on behalf of the applicant. Claims 1-3, 6, 7, and 10-12 are pending in the case. Claims 4, 5, 8, and 9 were withdrawn in a response by applicant on 2/14/2005. Furthermore, there are only 12 claims in the entire case. Claims 13 and 14 do not exist. The most recent listing of claims was submitted on 8/4/2003.
3. Applicant's arguments filed 7/11/2005 with regard to the rejection of claims 1-3, 6, 7, and 10-12 under 35 U.S.C. 103 have been fully considered but they are not persuasive. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the module of Nobuhara et al to include a Bragg grating formed in the protruding part of the optical fiber as taught by Kato et al for the purpose of creating an optical resonator (see column 1, lines

Art Unit: 2883

23-30 of Kato et al). A motivation for using the mounting member of Nobuhara to mount the optical fiber with the Bragg grating would be to prevent the generation of fiber bends and to make the fiber more resistant to temperature variations (see paragraph 88). A Bragg grating is a well known optical element used to create an optical resonator. While the applicant has pointed out drawbacks of the module taught by Nobuhara (see pages 5 and 6) this is irrelevant since the examiner has provided a "teaching, suggestion, or motivation [combine] found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art." See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The rejection under 35 U.S.C. 103(a) stands and has been repeated below.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 6, 7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Nobuhara et al (US 2001/0019648 A1)* in view of *Kato et al (US 6,273,620 B1)*.

6. Regarding claims 1 and 10-12, Nobuhara et al teach an optical module as shown in figure

1. The module includes a column-shaped mounting member (16) having a through hole (20) extending in a direction of the central axis of the mounting member. The through hole is formed by partially incising a part of the mounting member so as to expose the interior surface of the through hole (see paragraph 81). The exposed interior surface of the through hole functions as a

groove. An optical fiber (22) is inserted in the through hole and is secured in such a way so that the optical fiber protrudes with a specified length onto the mounting surface (see paragraph 81). Nobuhara et al do not teach that the fiber has a Bragg grating formed on the protruding part of the optical fiber. However, Kato et al teach an optical module comprising a ferrule containing an optical fiber with a Bragg grating near the tip of the fiber (see column 3, lines 21-43).

7. Regarding claims 2 and 3, Nobuhara et al in view of Kato et al teach an optical module as discussed above in reference to claim 1. Kato et al teach that the Bragg grating is used with a semiconductor optical amplifier to make an optical resonator (see column 1, lines 23-30 of Kato et al). The semiconductor optical amplifier is mounted on the same surface as the protruding portion of the optical fiber (see column 3, line 66 to column 4, line 9 of Kato et al).

8. Regarding claims 6 and 7, Nobuhara et al in view of Kato et al teach an optical module as discussed above in reference to claim 1. Nobuhara et al teach that the mounting member is made of a ceramic material, specifically, zirconia (see paragraph 80).

9. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the module of Nobuhara et al to include a Bragg grating formed in the protruding part of the optical fiber as taught by Kato et al for the purpose of creating an optical resonator (see column 1, lines 23-30 of Kato et al). A motivation for using the mounting member of Nobuhara to mount the optical fiber with the Bragg grating would be to prevent the generation of fiber bends and to make the fiber more resistant to temperature variations (see paragraph 88).

### *Conclusion*

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2883

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

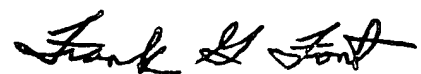
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek L. Dupuis whose telephone number is (571) 272-3101. The examiner can normally be reached on Monday - Friday 8:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Derek L. Dupuis



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800